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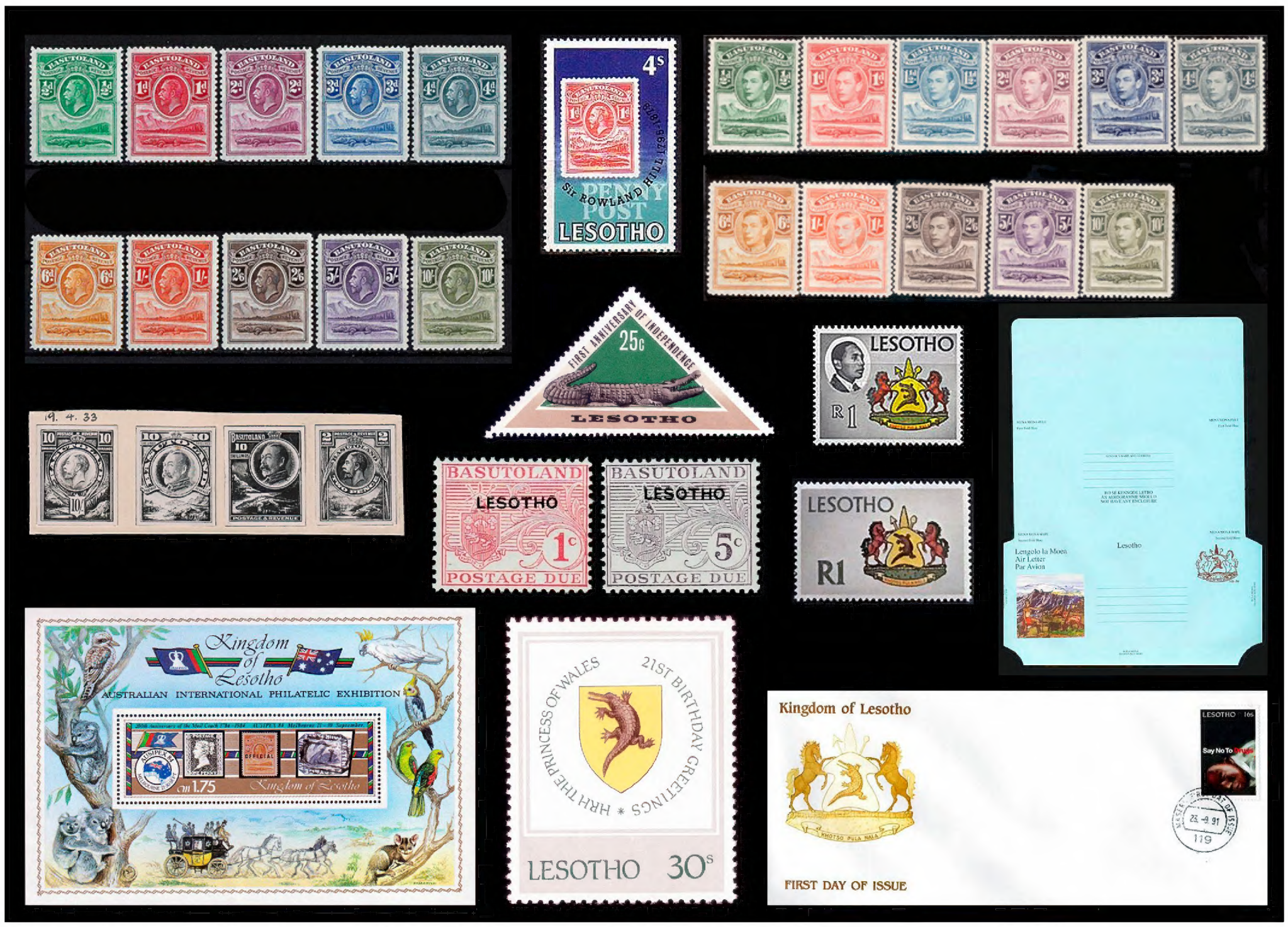

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Cover: The Nile crocodile, *Crocodylus niloticus*, has long been featured on the postage of the Kingdom of Lesotho (formerly the British colony of Basutoland), despite the fact that the species is not native to this landlocked southern African country. Photomontage by Steve Barten.

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On the Herpetological Collections of a Former Rough Rider, Colonel Martin Lalor Crimmins

R. Michael Burger
2505 Hwy 90 W
Castroville, TX 78009 USA
ungaliophis@gmail.com

Army officer, amateur archaeologist and military historian, Colonel Martin Lalor Crimmins was also an astute student of natural history, particularly snakes. He served in the U.S. Army as a young captain during the Mexican Border War and resulting drive into Mexico in 1916 in search of Pancho Villa. During his time in Mexico, Crimmins captured two rock rattlesnakes near El Valle, Chihuahua, stowing the first one inside a sock he had stored in his pocket and the second in a quickly emptied field-glass case before returning to his encampment. Improvising a "snake shelter" for his captives, Crimmins observed his associates showed little enthusiasm for his two rare specimens (Emmet, 1959).

One day a fellow officer, who had heard rumors that Crimmins desired to ship the snakes to the American Museum of Natural History, informed him that if he could get the snakes ready in 15 minutes, he would bring them north across the border on the next departing freight train. As circumstance had it, just as soon as Crimmins packed the specimens away in two coffee cans, a military photographer approached, wanting a photograph of the live cargo before they left (Emmett, 1959).

"I dumped the snakes on the ground, then caught them," noted Crimmins. "The first one was not so hard. The second one was not so easy, because I was holding the other snake in my left hand and had to press the other snake down with a stick, putting the stick on the back of the neck with my right hand; then my knee on the stick to hold it down. If he slipped his head, he'd bite me without a doubt. I finally picked him up, a snake in each hand and the photographer took the picture (Figure 1), but I still had the problem of putting those two snakes in a coffee can. I asked for assistance but nobody volunteered! So I got one snake into the can but as soon as I released him he came up like a 'jack-in-a-box,' and I had to catch him all over again using one hand only and pressing the stick with my knee. I did this seven times. Then when he started out again I slapped him back and put on the lid. I had no trouble with his companion when I could use both hands." American Museum curator Gladwyn Noble later contacted Crimmins informing him that the two rock rattlesnakes were the first live *Crotalus lepidus* to ever arrive at the museum (Emmett, 1959).

This was not the first time that Crimmins had collected for the New York institution. In 1908 while stationed at Ft. Crook, Nebraska, he was requested to collect a selection of small mammals found in the vicinity of the military base. The captain began trapping gophers and other small rodents, but soon found among his discoveries, two species of mephatids in Nebraska, a big striped skunk and a small spotted skunk. The museum asked for a specimen, so Crimmins ended up capturing a half a dozen each during the winter. Not wishing to skin them and having somewhat of an idea that they were practically odorless under freezing temperatures, he put them in a shipping container, marking them as "Mephitis Americana." Arriving at the museum after closing hours, a janitor accepted the container, putting it in a warm place next to a heater in the museum. Unfortunately, when the doors opened on Monday, the whole wing of the museum was immediately "Closed for Fumigation" (Emmett, 1959).

Martin Lalor Crimmins was born to John Daniel Crimmins and Lily Louis Crimmins in New York City on 4 April 1876. His father made a comfortable living in a successful family-owned construction business as well as serving as Park Commissioner. His father's acquaintances included former President Ulysses S. Grant and industrialist Andrew Carnegie. The family moved to a country estate in nearby Noroton, Connecticut, when Martin was two years of age, a place where he and his 13 siblings grew up around an equally impressive number of domesticated fowl, cattle, ponies, and his father's prized Southdown sheep.

Martin Crimmins attended Georgetown College in Washington, D.C., between 1891 and 1895, after which he entered the

Figure 1. Captain Crimmins at El Valle, Chihuahua, in 1916, handling two rock rattlesnakes (*Crotalus lepidus*) that made their way to the American Museum of Natural History.

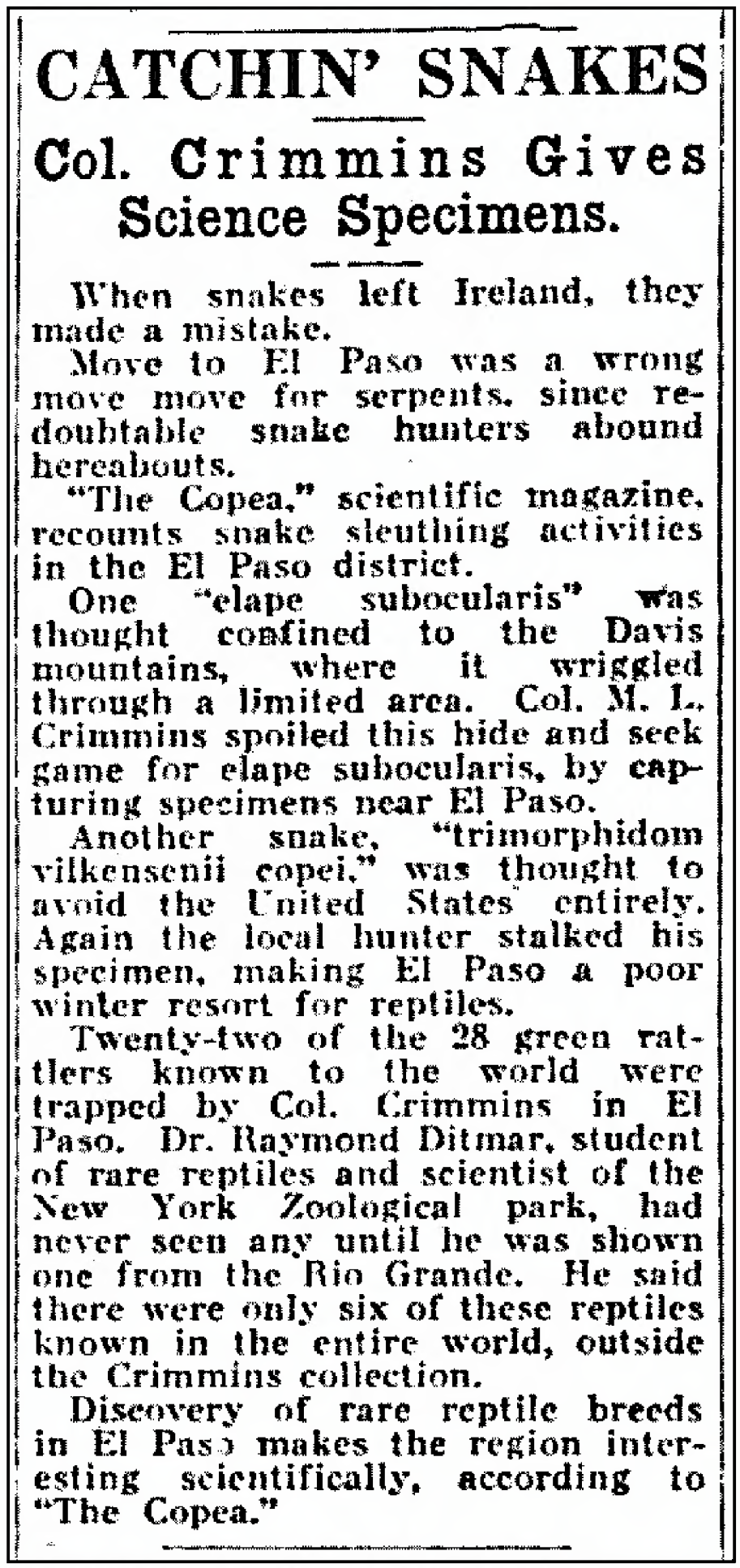
Figure 2. Roosevelt's "Rough Riders" arrival at Tampa, Florida. (Meadville, Pennsylvania: Keystone View Company, July 14, 1898. Retrieved from the Library of Congress, <www.loc.gov/item/2001698233/>.)

University of Virginia Medical School with intentions of be coming a physician. He became distracted from studies in 1898 by the armed conflict between the United States and Spain, leading to U.S. intervention in Cuba. Wishing to enter military service by using his father's influential connections, Martin joined Lieutenant Colonel Theodore Roosevelt and the 1st United States Volunteer Calvary, a regiment that soon became nicknamed the "Rough Riders." Arriving in San Antonio, Texas, on 23 May 1898, Martin trained with the assemblage of volunteers before traveling to Tampa, Florida via the Southern Pacific Railroad (Figure 2). Only eight of the twelve companies of Rough Riders actually traveled to Cuba due to transportation shortcomings. Private Crimmins was not on the roster and was left behind in Tampa. A short time later, however, and again through his father's influence, Private Crimmins received a commission as a second lieutenant (Emmett, 1959).

Attaining the rank of full colonel by 1920, Crimmins was stationed at Fort Bliss during the final years of his military career. It was during his service in El Paso that many of his herpetological contributions were sent to institutional collections. The American Museum of Natural History was a recipient of 21 species and subspecies of reptiles collected in El Paso, Bexar, and Brewster Counties in Texas and Otero County, New Mexico. Col. Crimmins received a letter from American Museum curator G. K. Noble during this period, requesting further specimens:

"Dear Colonel Crimmins, I have your letter of the fifth and wish to thank you heartily for your continued interest in the department. New York City has just given us nearly two and a half million dollars for new buildings. On the third floor of the new wing, now under construction, will be the Hall of Reptile and Amphibian Life. We are making every effort to increase our exhibition collections before that hall is completed. Your specimens will therefore, be particularly welcome at this time. We would like spectacular rattlesnakes, especially the rare forms. Wishing you the best of luck in your hunts. I remain very truly yours, G. K. Noble" (Crimmins, 1925a).

Among his most notable contributions to the American Museum came about on 26 October 1924, when an enlisted soldier captured a lyre snake (*Trimorphodon vilkinsonii*) on an eastern slope of the nearby Franklin Mountains. Crimmins ended up sending the specimen to Karl P. Schmidt of the Field Museum in Chicago for identification. It proved to be the first time the species had been recorded in the United States (Crimmins, 1925b). A juvenile Trans-Pecos rat snake (*Bogertophis subocularis*), collected by Crimmins in the Franklin Mountains on 5 May 1924, and sent to Schmidt for identification, extended the known range of the rat snake 125 miles to the northwest and allowed Schmidt to suggest the collection made "it probable that this snake will be found in southern New Mexico as well as in Trans-Pecos Texas." Up to that discovery, the species was previously known only from its type locality in the Davis Mountains (Schmidt, 1925). These collections and others were reported in an El Paso newspaper (Figure 3).



CATCHIN' SNAKES

Col. Crimmins Gives Science Specimens.

When snakes left Ireland, they made a mistake.

Move to El Paso was a wrong move move for serpents, since redoubtable snake hunters abound hereabouts.

"The Copea," scientific magazine, recounts snake sleuthing activities in the El Paso district.

One "elape subocularis" was thought confined to the Davis mountains, where it wriggled through a limited area. Col. M. L. Crimmins spoiled this hide and seek game for elape subocularis, by capturing specimens near El Paso.

Another snake, "trimorphidom vilkensenii copei," was thought to avoid the United States entirely. Again the local hunter stalked his specimen, making El Paso a poor winter resort for reptiles.

Twenty-two of the 28 green rattlers known to the world were trapped by Col. Crimmins in El Paso. Dr. Raymond Ditmar, student of rare reptiles and scientist of the New York Zoological park, had never seen any until he was shown one from the Rio Grande. He said there were only six of these reptiles known in the entire world, outside the Crimmins collection.

Discovery of rare reptile breeds in El Paso makes the region interesting scientifically, according to "The Copea."

Figure 3. Newspaper article on Colonel Crimmins from 1926.

"The largest display of deadly poisonous reptiles ever to be harbored at once in a university building at Cornell is squirming and buzzing in the laboratory of A. H. Wright, Assistant Professor of Zoology," began the introduction of a newspaper article on a collection of snakes received from Col. Crimmins (Anonymous, 1925a). Albert Wright had just returned from a tour of the southwestern United States, stopping in El Paso where he stayed with Crimmins. The collection was put on display at Cornell's McGaw Hall for several days and included "five Texas diamondback rattlers, one green rattler, one prairie rattler, two bull snakes, two ornate racers, one regal ring-necked snake, five semi-annulated snakes and six white-bellied garter snakes" (Anonymous, 1925b).

The New York Zoological Society was another beneficiary of amphibians and reptiles collected by Col. Crimmins. Approximately 15 species constituting over 170 specimens were received by the Society between the years 1923 and 1939 (Anonymous, 1924, 1927, 1928, 1930, 1931, 1932, 1938, 1939, 1940). One particular noteworthy New York Zoo shipment of six "rare blacktails" led to a three-week stay in a hospital in El Paso after Crimmins received a serious bite on the thumb, resulting in a temporary loss of consciousness. By the time he left the hospital, he was notified of his relief from further military duty due to a heart condition (Emmett, 1959).

"I have often been asked why I collect rattlesnakes and discourage others from collecting them," he once commented, adding, "I collect rattlesnakes alive in order that a correct record of this fast disappearing reptile may be made before it becomes extinct, as most people kill rattlesnakes whenever they can." Crimmins motives seemed to be ethically questionable, however, as he further noted he collected venomous snakes only because they were rare and "if for any reason I cannot collect them, I kill them to prevent them doing harm to others" (Crimmins, 1925a). In addition, he freely advised people to dispatch venomous snakes whenever they could safely do so with a rock or a stick (Crimmins, 1947).

After retiring from the military in 1926, Martin Crimmins became involved with the Antivenin Institute of America as a field assistant at the newly established San Antonio station in June 1926. He continued collecting specimens for institutions for a number of years afterwards, but his focus primarily shifted to extracting venom from western diamondback rattlesnakes (*Crotalus atrox*), which, when processed, was forwarded to Mulford Laboratories in Glenolden, Pennsylvania for immunization purposes in the development of antivenin (Figure 4).

Noted Texas photographer, historian and writer Wilfred Dudley Smithers assisted Colonel Crimmins in collecting snakes and extracting venom in 1925, giving an account some years later. "Each Sunday and some week days of the months from April through September the early morning hours were spent searching in the prickly pear, cactus, catclaw, and mesquite brush for snakes to catch, later we milked them," wrote Smithers. "During this period, those we caught and the dealer's snakes that we milked were more than 3,500 snakes. In the afternoon we would go to the dealer's place, in that community, who had been notified that we would be there that day. He would save as many snakes as he could for us to milk. We gave

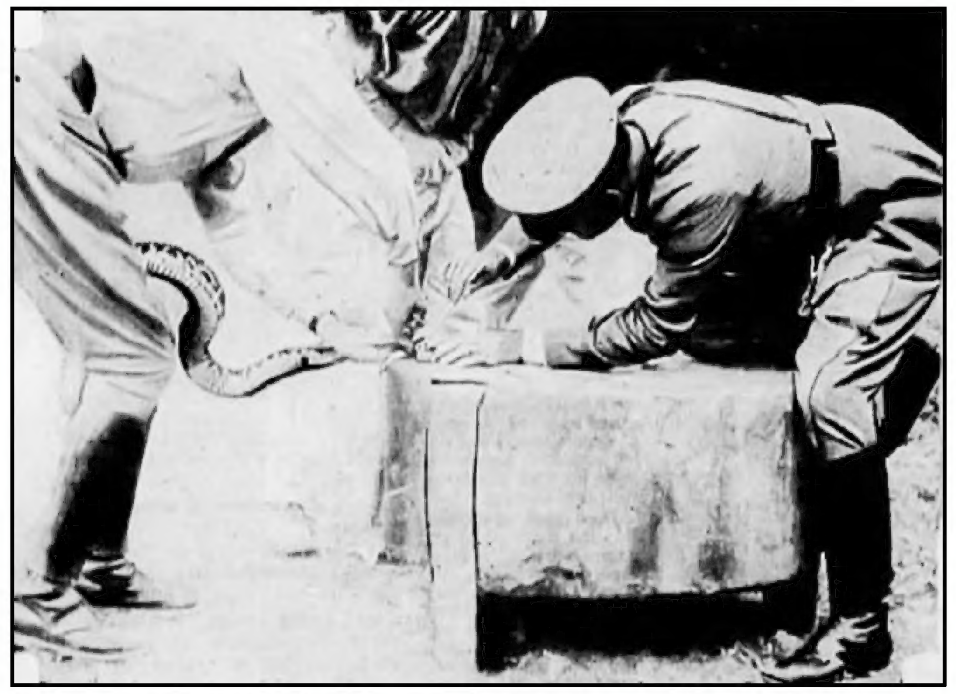


Figure 4. Colonel M. L. Crimmins (left) being assisted by Major R. E. Scott (right) extracting venom from a rattlesnake (ca. 1925).

him most of our snakes, except a few of the best specimens that the colonel would take to his home, later send them to some of his friends who were interested in snakes" (Smithers, 1961).

Aided by Major Raymond Scott, Chief of Laboratories, Fort Sam Houston, Crimmins also administered antivenin to snake bite victims. Of the 23 cases treated with antivenin furnished by the San Antonio station between June 1926 and September 1926, all recovered. Of the thirty cases of rattlesnake envenomation in Central Texas that were not treated with antivenom during those same months, fatalities occurred in thirteen cases as reported by newspapers. Approximately 2,600 miles were flown by military aircraft from San Antonio in delivering antivenin in cases where it was impossible to reach the patient by normal means of ground transportation in a timely manner (Crimmins, 1927). During a period when there was a shortage of antivenin due to government restrictions, Crimmins inoculated himself with venom over the course of four and a half months, thence offered his own blood through transfusion to aid snakebite victims (Crimmins, 1944).

In 1953 Crimmins received the Walter Reed Award "in recognition of courageous service to mankind." During his lifetime he authored over 200 articles primarily in historical and medical publications (Adams 2020). Other than the aforementioned institutions, Crimmins also collected herpetological specimens that are deposited in the National Museum of Natural History, Museum of Comparative Zoology at Harvard University, University of Michigan's Museum of Zoology, University of Colorado's Museum of Natural History, Carnegie Museum of Natural History, Chicago Academy of Sciences, San Diego Natural History Museum and others. Martin Lalor Crimmins, the "Rough Rider" collector, passed away on 5 Feb. 1955.

Acknowledgments

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Chiggers Parasitic on North American Amphibians: An Addendum

Dreux J. Watermolen
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707-7921

Introduction

Watermolen (2015) provided a comprehensive host-parasite checklist for chiggers (Arachnida: Acari) reported from North American amphibians that included 17 species of mites parasitizing 21 species of salamanders and 41 species of frogs. His host-parasite list included information on the geographic distribution of the records. Watermolen (2015) pointed out that, in most cases, the ranges of both the hosts and parasites are broader than the available information might suggest. It was further noted that "the relatively small number of states and the fact that some states are represented by only one or a very few records suggests that there is much yet to be learned about these organisms." It is not surprising then that several additional reports, including new host and distribution records, have appeared since publication of Watermolen's (2015) synopsis. In addition, a small number of references missed in the previous compilation were discovered after the tabulation went to press. This current contribution updates the earlier host-parasite checklist and provides minor corrections.

Additional Host and Geographical Records

Table 1 presents additions to Watermolen's (2015) host-parasite checklist. Chigger names are preceded by an "L" or "T" indicating the family to which the species belong, Leeuwenhoekiidae and Trombiculidae, respectively. The geographic location for each report is indicated at the state level. Amphibian

nomenclature follows Crother (2017) for U.S. species and Hedges et al. (2019) for Mexican species. These records add one species of chigger and six species of amphibians to the host-parasite checklist. Reports are now available for 21 states in the U.S. and 17 in Mexico. Additionally, unidentified chiggers have been reported from bullfrogs (*Lithobates catesbeianus*) and southern leopard frogs (*L. sphenocephalus*) in Oklahoma (Trowbridge and Hefley, 1934), Blanchard's cricket frogs (*Acris crepitans blanchardi*) in Nebraska and South Dakota (McCallum and Trauth, 2004), and pickerel frogs (*L. palustris*) in Virginia (reviewed by Gibson and Welbourn, 2018).

Corrections

Biologists previously recognized two subspecies of the many-ribbed salamander (*Eurycea multiplicata*): *E. m. griseogaster* and *E. m. multiplicata*. Biochemical data, however, indicate that populations assigned to *E. m. griseogaster* are conspecific with the Oklahoma salamander (*E. tynerensis*) (Bonett and Chippindale, 2004). Thus, the graybelly salamander (*Eurycea m. griseogaster*) host record from McAllister, Trauth and Bursey (1995) cited by Watermolen (2015) applies to Oklahoma salamander (*E. tynerensis*).

The locality information provided by Watermolen (2015) for the report by Monroy-Vilches et al. (2015) of *Hannemania* sp. from Forrer's grass frog (*Lithobates forreri*) was incomplete. The correct state location for that report is Guerrero, Mexico.

The chigger species "*Hannemania saxatilis*" listed by Watermolen (2015) as a parasite of marbled robber frog (*Eleutherodactylus saxatilis*) should be *H. saxicola* as named by Welbourn and Loomis (1970) in their original description.

Watermolen's (2015) report of *Hannemania penetrans* from Couch's spadefoot (*Scaphiopus couchii*) was based on a misreading of Kuntz's (1941) report and should be deleted from the host-parasite list.

Table 1. Host, parasite, and geographic distribution additions to Watermolen's (2015) host-parasite checklist.

Bufonidae

Dwarf American Toad (*Anaxyrus americanus charlesmithi*)
L: *Hannemania dunni* – **Arkansas**: Connior, McAllister et al., 2016

Fowler's Toad (*Anaxyrus fowleri*)
L: *Hannemania dunni* – **Louisiana**: Connior, Durden and McAllister, 2016

Arizona Toad (*Anaxyrus microscaphus*)
L: *Hannemania bufonis* – **New Mexico**: Ryan et al., 2016

Southern Toad (*Anaxyrus terrestris*)
L: *Hannemania hegeneri* – **Florida**: McAllister et al., 2015

Unidentified Toad (*Anaxyrus* sp.)
T: *Eutrombicula alfreddugesi* – **Virginia**: Ewing, 1944

Hylidae

Eastern Cricket Frog (*Acris crepitans*)
L: *Hannemania penetrans* – **Oklahoma**: Morrison, 1967

Bird-voiced Treefrog (*Hyla avivoca*)
T: *Eutrombicula cinnabaris* – **Arkansas**: Connior, McAllister et al., 2016

Microhylidae

Great Plains Narrow-mouthed Toad (*Gastrophryne olivacea*)
L: *Hannemania multifemorala* – **Texas**: Oyervides et al., 2016

Ranidae

Rio Grande Leopard Frog (*Lithobates berlandieri*)
L: *Hannemania dunni* – **Texas**: McAllister et al., 2017
L: *Hannemania mexicana* – **Veracruz, Mexico**: Jacinto-Maldonado et al., 2016
L: *Hannemania* ca. *mexicana* – **Coahuila, Mexico**: Paredes-León, 2019
L: *Hannemania* ca. *saxicola* – **Coahuila, Mexico**: Paredes-León, 2019

Plains Leopard Frog (*Lithobates blairi*)
L: *Hannemania dunni* – **Texas**: McAllister et al., 2017

Central American Water Frog (*Lithobates brownorum*)
L: *Hannemania mexicana* – **Veracruz, Mexico**: Jacinto-Maldonado et al., 2016

Table 1 (cont'd).

Pickerel Frog (*Lithobates palustris*)
L: *Hannemania dunni* – **Arkansas**: Connior, McAllister et al., 2016; **Virginia**: Gibson and Welbourn, 2018
L: *Hannemania* sp. – **Virginia**: Mitchell, 2004

Coastal Plains Leopard Frog (*Lithobates sphenocephalus utricularius*)
L: *Hannemania dunni* – **Alabama**: Birkhead et al., 2007; **Arkansas**: Connior, McAllister et al., 2016

Common Marshfrog (*Lithobates vaillanti*)
L: *Hannemania mexicana* – **Veracruz, Mexico**: Jacinto-Maldonado et al., 2016

Plethodontidae

Southern Two-Lined Salamander (*Eurycea cirrigera*)
L: *Hannemania* sp. – **Virginia**: Mitchell, 2004

Oklahoma Salamander (*Eurycea tynerensis*)
L. *Hannemania dunni* – **Arkansas**: Connior, McAllister et al., 2016

Ozark Zig-zag Salamander (*Plethodon angusticlavius*)
L. *Hannemania eltoni* – **Missouri**: Dalton and Mathis, 2014

Caddo Mountain Salamander (*Plethodon caddoensis*)
L: *Hannemania dunni* – **Arkansas**: Saugey et al., 1985

Northern Slimy Salamander (*Plethodon glutinosus*)
L: *Hannemania* cf. *dunni* – **Alabama**: Bakkegard et al., 2019
L: *Hannemania hegeneri* – **Illinois**: Landewe, 1960
T: *Eutrombicula lipovskyana* – **Illinois**: Landewe, 1960

Southern Gray-cheeked Salamander (*Plethodon metcalfi*)
L: *Hannemania* sp. – **Georgia**: Brown et al., 2006

Yonahlossee salamander (*Plethodon yonahlossee*)
L: *Hannemania hegeneri* – **North Carolina**: Adler and Dennis, 1962

Midland Mud Salamander (*Pseudotriton montanus diastictus*)
L: *Hannemania dunni* – **Kentucky**: McAllister et al., 2010

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Unissued Philatelic Essays of Basutoland 1933, and the Lesotho Crocodile Stamp Issues

Indraneil Das [1] and Aaron M. Bauer [2]

Basutoland, a British Crown colony from 1884 to 1966, received its independence and is now the Kingdom of Lesotho, a landlocked nation in southern Africa. The earliest postage stamps used in the colony were those from the Cape of Good Hope (since 1876), and subsequently, those of South Africa (from 1910 to 1933). A philatelic history of the region is in Proud (1996).

On 1 December 1933, Basutoland issued its first stamps, a pictorial set of 10 definitives under the King George V definitives, of face values ½ penny (= d), 1 d, 2 d, 3 d, 4 d, 6 d, 1 shilling (= s), 2 s 6 d, 5 s, and 10 s (Stanley Gibbons, SG catalog numbers 1–10). Figure 1 shows stamps from the series, that incorporates a profile of the then ruling monarch (George V, 1865–1936) and a lateral view of the Nile Crocodile (*Crocodylus niloticus*), against a backdrop of mountains.

Figure 1. Basutoland's first pictorial definitives from 1933, comprising 10 values from the King George V set (SG 1–10).

Four essays (Figure 2) were apparently not accepted and replaced, and show proposed face values of 2 d and 10 s. These were attached to a card, measuring 120 mm × 39 mm, and each of

Figure 2. Four unissued essays from Basutoland's 1933 pictorial definitives.

the proofs affixed is 26 mm × 32 mm. All include the crocodile and incorporate either a profile or a fronto-lateral view of the monarch. These essays are in the daily record book (dated "19.4.33") of the official postal agency of the time, Bradbury Wilkinson Ltd, England-based engravers and printer of bank-notes, postage stamps, and share certificates, established in the 1850s (see Dyer, 2015). It is unclear why the designs were not approved, apart from the significantly finer details of the crocodilians depicted in the final versions.

In 1938, a replacement set of 11 values was issued, featuring a new monarch (George VI, 1895–1952), bearing identical face values, except for an additional 1½ pence stamp (SG 18–28; Figure 3). It is important to note that mountainous Lesotho is home to no living crocodilian species, although a protosuchian crocodyliform, †*Orthosuchus stormbergi* Nash, 1968, was found in the Early Jurassic rocks of the country. Nonetheless, a crocodile on a Basotho shield and flanked by two horses appears in the country's coat of arms (adopted on 4 October 1968), following the country's independence, and retained in the arms of Basutoland. Lesotho's largest ethnic group, the Sotho or Basotho, are descendants of the Sotho-Twsana expansion southward from the Great Lakes region of East Africa in the 5th century C.E. and presumably carried the cultural significance of the crocodile with them into the high elevation and crocodile-free inland of southern Africa. With the establishment of

Figure 3. Basutoland's reissued pictorial definitives from 1938, comprising 11 values from the King George VI set (SG 18–28).

1. Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, MALAYSIA. idas@unimas.my

2. Department of Biology and Center for Biodiversity and Ecosystem Stewardship, Villanova University, 800 Lancaster Avenue, Villanova, Pennsylvania 19085, USA. aaron.bauer@villanova.edu

Figure 4. Basutoland 1961 postage-due stamps, showing those of 1d and 5d values, overprinted for use in Lesotho (SG D3 and SG D7a).

Figure 5c. Kingdom of Lesotho, issued 1967, to commemorate the first anniversary of independence (SG 143).

Basutoland in the 19th century, the Sotho people brought the imagery of their totemic animal into their newly inhabited country (Riep, 2011). This may not be so surprising, given the widespread recognition of water creatures with crocodile-like characteristics in the folklore of several other southern African ethnic groups now living in areas that have never supported crocodiles, or did so only centuries ago (Feely, 2010). The nearest crocodile records to Lesotho are in the area of the upper Tugela River in KwaZulu-Natal, South Africa (Marais, 2014), where they occupy artificial dams. These records lie only ~ 25 km from the northeastern border of Lesotho, but the international border in this area straddles the highest portions of the Drakensburg Mountains, reaching elevations of over 3,000 m, forming an absolute barrier for crocodilians.

Basutoland's coat of arms featuring a crocodile, has appeared on postage-due stamps (two representatives from the design depicted here: SG D3; 1d and SG D7a; 5d) from 1961, which was overprinted for use by the Kingdom of Lesotho (Figure 4) in 1966.

Fresh designs of four Lesotho coat-of-arms stamps, where the crocodilians take center stage, have since been issued by the Kingdom: the first two (SG 135 and SG 202), both of Rand 1 value, issued sometime in 1967 and on 4 January 1971, from definitive series (Figures 5a-b); the third (SG 143), on 4 October 1967, commemorating the first anniversary of independence, a 25c triangular stamp (Figure 5c); the fourth (SG 375), issued in 1979, issued on the occasion of the centenary of death of Sir Rowland Hill (Figure 5d), that incorporated the George V definitive (2 pence, SG 2); the fourth, a miniature sheet (SG MS604), issued on 5 September 1984, for the occasion of Ausipex84, International Stamp Exhibition, held in Melbourne, Australia (Figure 5e), and the fifth (SG 514a), of 30s value,

Figure 5d. Kingdom of Lesotho, issued 1979, on the occasion of the centenary of death of Sir Rowland Hill (SG 375).

Figure 5a. Kingdom of Lesotho, showing the motif within the national coat-of-arms, issued 1967, from a series on national definitives (SG 135).

Figure 5b. Kingdom of Lesotho, showing the motif within the national coat-of-arms, issued 1971, from a reissued series of national definitives (SG 202).

Figure 5e. Kingdom of Lesotho, issued 1984, on the occasion of the Ausipex84, International Stamp Exhibition, Melbourne (SG MS604).

Figure 5f. Kingdom of Lesotho, issued 1982, to commemorate the 21st birthday of Diana, Princess of Wales (SG 514a).

issued 1 July 1982 to commemorate the 21st birthday of Diana, Princess of Wales (Figure 5f). The crocodilian coat of arms also occurs on printed envelopes for first day covers (Figure 6a) and on a contemporary aerogramme from Lesotho (Figure 6b).

It is by no means uncommon for countries to issue stamps depicting exotic amphibians and reptiles, particularly when postal authorities commission independent agencies to design and produce philatelic products. Indeed, non-autochthonous herpetofaunal species have been common since at least the 1970s on the issues of many countries, primarily for the purpose of philatelic sales. Basutoland/Lesotho may be unique in the prominence held by a non-indigenous species in its postal imagery, the crocodile stamps here discussed being issued for real postal purposes. Although depicting non-native species, these issues gain their legitimacy through the cultural relevance of *Crocodylus niloticus* as an important symbol of the Sotho people.

Acknowledgments

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Figure 6a. A printed envelope serving as an official first day cover issued 23 September 1991 for the single stamp under the theme "Say No to Drugs Campaign" (SG 1031), showing the coat-of-arms of the Kingdom of Lesotho.

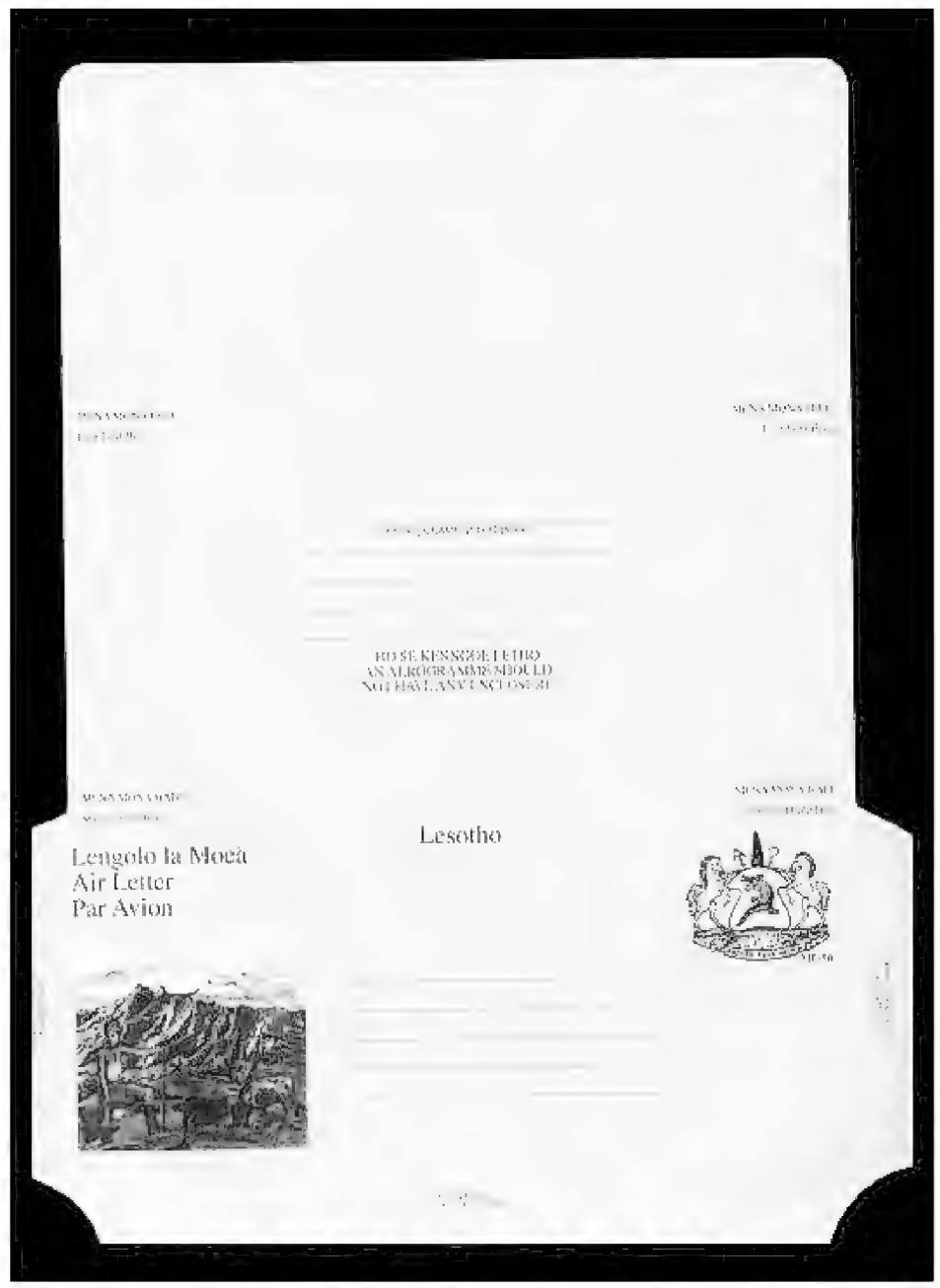

Figure 6b. A modern aerogramme from Lesotho, showing the coat-of-arms of the kingdom.

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Notes on Mexican Herpetofauna 36: A New Locality in Nuevo León, Mexico, for the Pygmy Alligator Lizard, *Gerrhonotus parvus* Knight & Scudday, 1985 (Squamata: Anguidae)

David Lazcano [1], Javier Banda-Leal [1], Daniel Montoya Ferrer [1] and Larry David Wilson [2]

Abstract

Here we document the finding of a female pygmy alligator lizard, *Gerrhonotus parvus*, in the municipality of San Pedro Garza García, Nuevo León, Mexico, extending its distribution range. This enigmatic species, along with *G. farri*, *G. lazcanoi* and *G. lugoi*, falls within the small *Gerrhonotus* group, with smooth dorsal scales in comparison to the large species of *Gerrhonotus*.

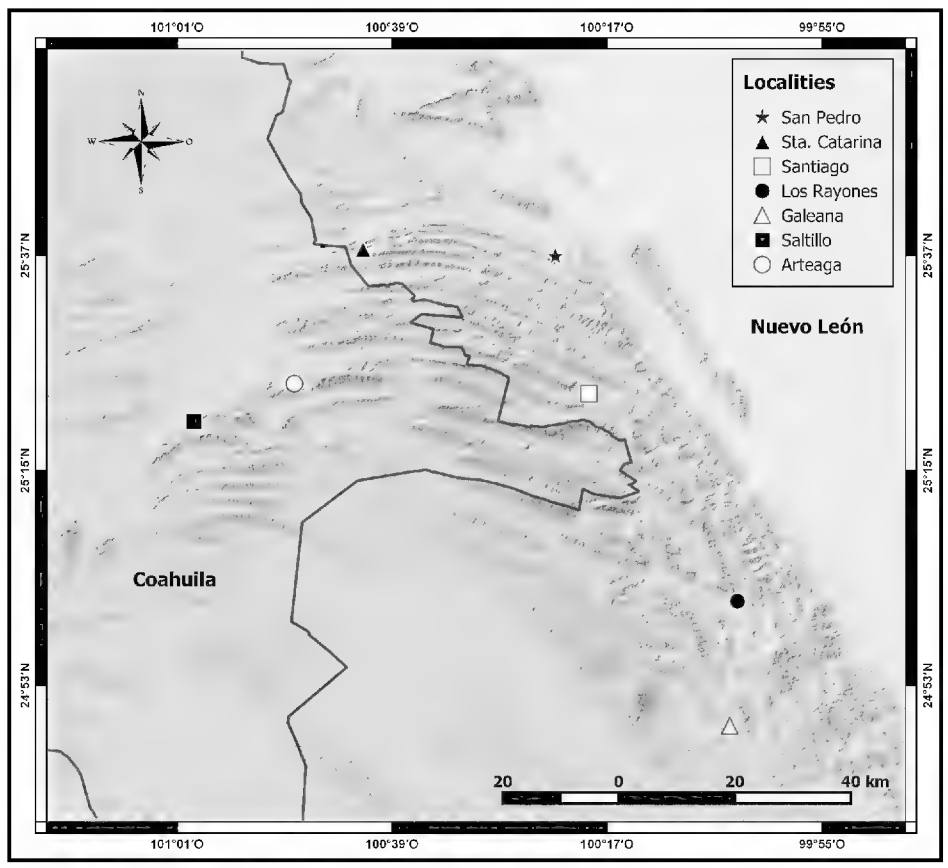
Resumen

Aquí documentamos el hallazgo de la hembra *Gerrhonotus parvus* en otro municipio dentro del estado de Nuevo León, México. Ampliando su distribución en el municipio de San Pedro Garza García, Nuevo León, México. Esta especie se encuentra dentro del grupo de los *Gerrhonotus* pequeños, con escamas dorsales lisas, en comparación con las especies de grandes de *Gerrhonotus*. Como grupo de especies similares sigue siendo una de las especies más enigmáticas del grupo, junto con *Gerrhonotus farri*, *G. lazcanoi*, y *G. lugoi*.

Colonia Olinalá (25°37'05.06"N, 100°22' 20.06"W; WGS84; elevation 1201 m) is a residential neighborhood bordering on the "Parque Ecológico Chipinque." On 26 April 2020, a citizen living there, while looking over her flower pots, found a strange-looking lizard in one of the pots. She had never before seen one like it; she took a photo of the animal, and sent the photo to our lab personnel. We immediately identified it as a female *Gerrhonotus parvus* (UANL-8487). When brought to the lab, we made the following measurements: snout–vent length = 71 mm; tail length = 86 mm; total length = 157 mm; weight = 6.42 g.

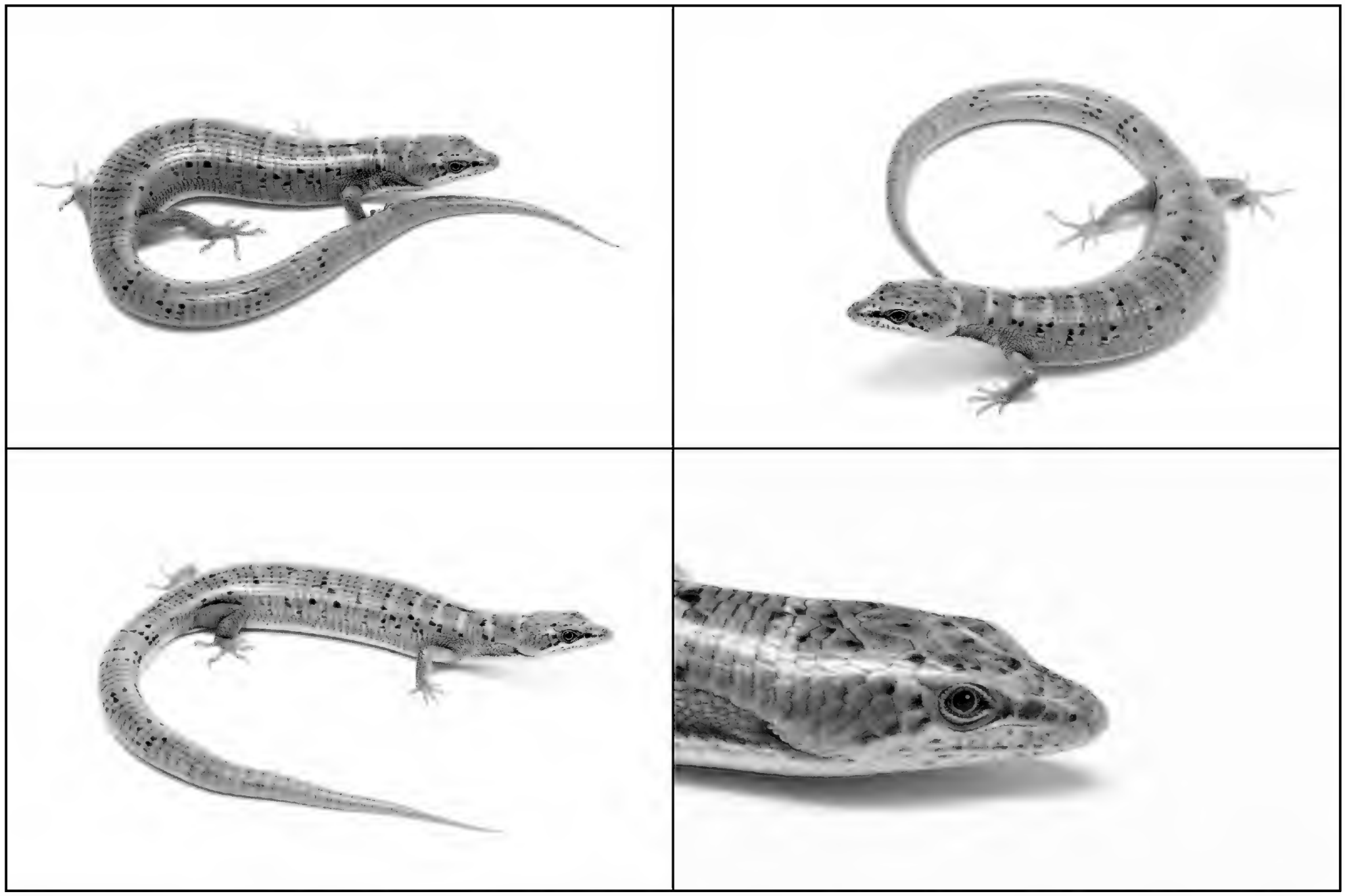
Background

Gerrhonotus parvus is known from the Sierra Madre Oriental in the state of Nuevo León (Figure 1). The species was reported originally from the municipality of Galeana in a transition zone between pine forest (*Pinus arizonica*) and open gypsophilic scrub at 1650 m above sea level (Knight and Scudday, 1985), and subsequently reported to the northwest in the municipalities of Galeana, Los Rayones, Santiago, and Santa Catarina (Banda-Leal et al., 2002; Banda-Leal et al., 2013; Banda-Leal et al., 2014b). What has been written in the past about this species deals with reports of new localities, as well as its litter size, sympatric herpetofauna, and potential predators (Bryson et al., 2003; Bryson and Lazcano, 2005; Banda-Leal et al., 2013, 2014a, 2014b; Banda-Leal, 2016).



Known localities for *Gerrhonotus parvus*.

Although known from several localities in Nuevo León, *G. parvus* still remains an enigmatic species. This alligator lizard is small, with maximum total lengths of 130 mm for males (Banda-Leal et al., 2005) and 84.5 mm for females (Knight and Scudday, 1985). This species differs from its congeners by a combination of morphological characters, including small adult size, smooth dorsal scales, nasals in contact with the medial fifth supraocular, suboculars separated from lower primary temporal by an upper labial, and wide pale crossbands on the tail (Knight and Scudday, 1985). The scalation of the specimen reported here is consistent with that reported for the species. Until now the locality of San Isidro in the municipality of Santiago, is where we have found most of the individuals (Banda-Leal et al., 2002). This canyon lies at 1,650 m above sea level, runs east and west, and is characterized by steep limestone walls covered with agave (*Agave lechuguilla*, *A. bracteosa*), sotols (*Dasylirion* sp.), and scrub oaks (*Quercus* sp.), and has intermittent pools of water. The canyon bottom contains piles of leaf litter with scattered large rocks (Banda-Leal et al., 2002; Bryson and Lazcano, 2005). Between the Galeana and Cañón de San Isidro sites, one specimen of *G. parvus* was found in the Cañón de Mireles in the municipality of Los Rayones, with a habitat similar to that of the Cañón de San Isidro, but at 900 masl, the lowest recorded elevation for this species (Conroy et al., 2005). Later, one specimen was found in the municipality of Santa Catarina, in Cañón de Reflexiones, northwest of the Cañón de San Isidro; both localities have very similar habitats (Banda-Leal et al., 2014b). In addition to Nuevo León, this species has recently been reported in the state of Coahuila, in various locations in the state protected natural area "Sierra de Zapalinamé," which encompasses the municipalities of Arteaga and Saltillo



Female *Gerrhonotus parvus* (UANL-8487) from the municipality of San Pedro Garza García, in various positions. Photographs by Daniel Montoya Ferrer.

(Banda-Leal et al., 2018). The ecological characteristics of the areas in Coahuila are similar to those in Nuevo León.

Gerrhonotus parvus is currently protected by national and international laws. The specie is given Special Protection status by the SEMARNAT (2010), and is listed as Endangered by IUCN (2020). The Environmental Vulnerability Category is High (score = 17), as documented by Nevárez et al. (2016) and Lazcano et al. (2019). The species is found in Nuevo León and Coahuila in the physiographic region known as the Gran Sierra Plegada (Nevárez et al., 2016; Lazcano et al., 2019).

Another anguid species, *Gerrhonotus infernalis*, is known to occur in the Parque Ecológico Chipinque. *Gerrhonotus infernalis* is also sympatric with *G. parvus* in other localities, such as Cañon de San Isidro in Santiago, Nuevo Léon. We mention this here because *G. infernalis* is a large species that can prey on the smaller *G. parvus* (David Lazcano, personal observation).

Description of the Site

The neighborhood where the specimen was found is bordered to the east by "Parque Ecológico Chipinque," an ecological park straddling the municipalities of San Pedro Garza García and Monterrey. That park was designed as a private natural protected area, but falls into a larger federal protected area: "Parque Nacional Cumbres de Monterrey." In this site there is an oak–piedmont scrub vegetation community with the following dominant species: *Helietta parvifolia* (barreta / *barreta*), *Cordia boissieri* (Texas olive / *anacahuita*), *Pithecellobium pallens* (ape's earring / *tenaza*), *Acacia rigidula* (blackbush acacia / *huizache*), *Acacia farnesiana* (sweet acacia / *guizache*) *Caesalpinia mexicana* (Mexican holdback / *poinciana*), and *Prosopis glandulosa* (honey mesquite / *mesquite dulce*). In the oak forest occur *Quercus canbyi* (Chisos oak / *roble rojo)*, *Q. laceyi* (Lacey oak / *encino laurelillo*), *Q. laeta* (white oak / *encino blanco*), *Q. polymorpha* (net-leaf white oak / *encino manzanero*), *Q. rhysophylla* (loquat leaf oak / *encino colorado*), *Q. virginiana* var. *fusiformis* (southern live oak / *encino del sur*, *Arbustos xalapensis* (Texas madrone / *madroño*), *Prunus serotina* (black cherry / *cerezo negro americano*), and *Juglans mollis* (Mexican walnut / *nogal encarselado*). The difference between this site and the ecological park is that in this locality

Gerrhonotus infernalis, a competitor and possible predator of *G. parvus*, known to occur in Parque Ecológico Chipinque. Photograph by Miguel Ángel Gómez.

Habitat surrounding the houses in Colonia Olinalá, municipality of San Pedro Garza García, Nuevo León, Mexico. Photographs by Miguel Ángel Gómez.

there is a combination of forest and large houses that have been built within the forest vegetation community (INEGI, 1986; Alanís-Flores, 2004; Villarreal-Quintanilla, 2007; Villarreal-Quintanilla and Estrada-Castillón, 2008; Velazco-Macías, 2009; Velazco-Macías and Alanís-Flores, 2014).

Discussion and Conclusion

The finding of this species in a new municipality for the state is an unexpected event, because the closest locality is in the municipality of Santiago, Nuevo León, which lies on the other side of the Sierra Madre Oriental. We had suspected that it might be found on the northern side of the mountains, and this discovery now confirms our suspicion. At this point, this lizard is now known from five municipalities in the state, which are, in chronological order as found: Galeana, Los Rayones, Santiago, Santa Catarina, and now San Pedro Garza García. *Gerrhonotus parvus* is also known from two municipalities in Coahuila: Arteaga and Saltillo. The airline distances from Olinalá to the other findings of *G. parvus* are as follows: Cañon de San Isidro (Santiago) = 27.63 km; Cañon de Reflexiones (Santa Catarina) = 32.91 km; Las Nieves II (Arteaga) = 50.20 km; Cañón de San Lorenzo (Saltillo) = 69.70 km; Cañón Calabacillas (Saltillo) = 72.80 km.; Cañon de Mireles (Los Rayones) = 71.80 km; Ejido Santa Rita (Galeana) = 98.75 km. Table 1 lists our *G. parvus* findings, along with the vegetation community and elevation. We have noticed that they seem to prefer rocky pine-oak–rosettophyllous desert scrub forest communities, where it is very dry during the whole year, except in the months of May and September, which are the normally wet months. There has been much written about this species by our group, but we think there is still much to learn about the species, especially on its natural biology and distribution patterns in the Sierra Madre Oriental.

Acknowledgments

We wish to thank the Gómez-Garza family for sharing their finding. We would also like to thank our herpetological students for their work in the field and laboratory. We are grateful to all the local community members who now enjoy watching for and photographing members of the local herpetofauna and submitting their work to us so that we can document the results. The permit to collect specimens was issued to DL (Oficio N°SGPA/DCVS/04082/19, extended by Oficio N°SGPA/DCVS/01830/20.

Table 1. Localities, plant communities, and elevations for *Gerrhonotus parvus* in Nuevo León and Coahuila, Mexico.

Locality	Municipality, State	Plant community	Elevation (masl)
Ejido Santa Rita	Galeana, Nuevo León	pine–gypsophilic scrub	1650
Cañon de Mireles	Los Rayones, Nuevo León	oak–rosettophyllous desert scrub	900
Cañon de San Isidro	Santiago, Nuevo León	oak–rosettophyllous desert scrub	1650
Cañon de Reflexiones	Santa Catarina, Nuevo León	oak–rosettophyllous desert scrub	1650
Cerro de las Nieves II	Arteaga, Coahuila	oak–rosettophyllous desert scrub	2207
Cañón de San Lorenzo	Saltillo, Coahuila	oak–rosettophyllous desert scrub	1920–2123
Cañón Calabacillas	Saltillo, Coahuila	oak–rosettophyllous desert scrub	2220
Colonia Olinalá (residential area)	San Pedro Garza García, Nuevo León	oak–piedmont scrub	1201

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Herpetological Art at the Houston Zoo, June 2018

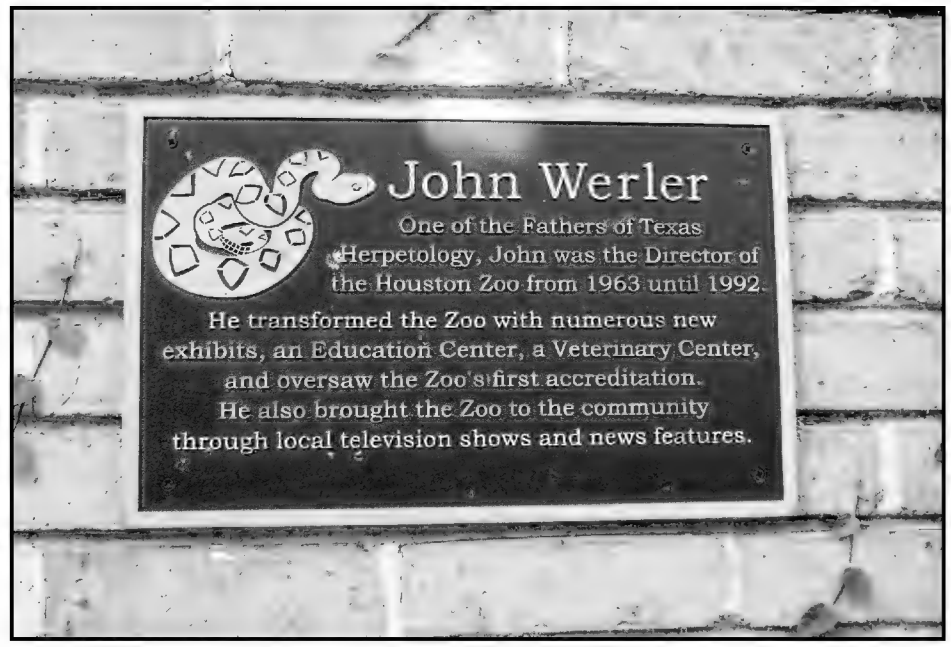
Photos and story by
Roger Carter
625 Lakeview Dr
Zionsville, IN 46077
drymarchonzz@hotmail.com

The 41st International Herpetological Symposium was held in Houston, Texas, June 20–23, 2018. One highlight of the symposium was a bus trip to the Houston zoo in Hermann Park for a private, behind-the-scenes tour of the herpetarium. The general public was kept out of the building while we were in there.

In front of the herpetarium are two bronze statues. One is of a frog, and is approximately four feet tall. I like to joke that the frog statue is almost the size of a Smart Car. The second statue is of a cobra that has raised itself up and spread its hood. This statue is on a rock pedestal and stands about five feet tall.

I don't know if there are any other herpetological statues in the Houston Zoo. We didn't go through the front entrance, but were guided through a service entrance or an employee entrance. When we left the bus, we were escorted to the herpetarium and, after that, we were directed to a pavilion where we had dinner and drinks and then back to the buses to return to the hotel.

On a personal note, for herpers who haven't attended any herp conferences, these are great events. There are talks about different aspects of herpetology, many by people who are doing scientific research in the field. Some of these talks are technical and scientific but not too bad and we get to socialize with people who share our interest in herpetology, and, after the final night's banquet, there is an auction of some nice herpetological collectables: books, posters, figurines, etc. The auction can get a little out of hand in a very humorous way. The conferences are a great social event and can be a lot of fun.


John Werler
One of the Fathers of Texas Herpetology, John was the Director of the Houston Zoo from 1963 until 1992.
He transformed the Zoo with numerous new exhibits, an Education Center, a Veterinary Center, and oversaw the Zoo's first accreditation.
He also brought the Zoo to the community through local television shows and news features.

Bulletin of the Chicago Herpetological Society 55(11):224-227, 2020

Adventures with Dr. Rosen — Part 1

Roger A. Repp
9044 N. Valgrind Lane
Tucson, AZ 85743
repproger22@gmail.com

My heart sank a little when I saw the following announcement in the March 2020 issue of the *Sonoran Herpetologist*, which is the newsletter of the Tucson Herpetological Society:

Philip Rosen is looking for an assistant / collaborator for completing reports regarding local herpetofauna trends, etc., during a time of illness. The person would have to work locally with Dr. Rosen at his convenience, and would need strong computer, spreadsheet, and data reduction, summary, and presentation skills, and at least the ability to interact with a statistician-biologist if needed. Should be available now to drive to central Tucson, and agree to payment according to experience. (The announcement ended with contact information, which has since become obsolete).

I knew that this was not good. I contacted Phil, only to discover this was worse than I thought. Phil had kidney cancer, and the remainder of his life would be measured in months, and not years. He died on 18 September 2020. This year has not been a good year. As I have personally watched one darn thing after another go badly, I am almost afraid to ask "What next?" That is probably because I know that one should never ask a question that one doesn't want to hear the answer to. I seriously do not want to know what's next, but I expect that I will find out anyway. I just hope that it isn't something worse than my friend Phil passing away.

Figure 1. Dr. Philip C. Rosen documenting a Chuckwalla (*Sauromalus ater*) that he found on 16 January 2003. Image by the author.

I refuse to grieve about this. I'm going to compartmentalize Phil's death into that deep, dark portion of the brain where all of life's tragic events are stored. I want to have some fun with my memories of Phil instead. I want to start with an image of Phil that I shared with an audience on the evening of 16 September 2003. (That was the evening that Phil received the coveted Jarchow Conservation Award. The significance of this award will be discussed in a later column.) As soon as this photograph of Phil hit the screen, I said "I thought I'd show this image of Phil because this is what I imagine God looks like" (Figure 1). The comment brought about some nervous titters from the audience, but there were a lot of heads nodding as well. To those of us who love getting out into the field to seek and find our crawly friends, the joy of herping is in essence a form of heaven on earth. When my ugly day comes and I cross into the great beyond, should I see a sight like that portrayed in Figure 1, I will know that my afterlife is going to be *great*!

I was not in the field very much with Phil. But the few times that we *were* together in the field were special to me in ways beyond even the best of times with others. Right from the start, there was this fellowship—a bond of sorts. Perhaps a meeting of kindred minds and spirits? If that sounds corny or contrived, so be it. For whatever reason, I have decided to just go with the notion of writing about our few adventures in the field together. I hope that no matter how many columns it takes, I can finish with a strong statement regarding what was lost to the world-wide family of herpetologists and herpetology when Phil passed away.

§§§§§

Almost everyone who spends time in the field with Phil Rosen comments on his intensity and attention to detail. He is a keen observer and writes copious, lucid field notes. Nothing deters him from getting the information onto paper, not even television producers trying to hurry him to a shoot (Schwalbe, 2003).

"I want to cill Brent."

Those were the first words of the very first email that I ever received from Phil Rosen. I remember being enthused about the notion of Phil "cilling" poor Brent. I thought to myself "Phil wants to cill Brent? Sounds good to me!" I should take a moment to explain that Phil didn't really want to "cill" Brent. He was merely pissed at a guy whom we know and sometimes like. In many ways, Brent is my hero. He has at times been very kind to me. But everybody who knows Brent well immediately understands the reasons why somebody might get mad at him. There is a saying that as one goes through life, one can accumulate one thousand "atta boys" for things that one does right. Then comes that one "aww shit" moment that cancels all the atta boys. In a

nutshell, Brent's problem is too many "aww shit" moments. His ratio of atta boys to aww shits is closer to one-to-one than a thousand to one. All I'm trying to say is that even if Phil had said nothing else in this email, I would have already understood the "cill Brent" situation.

I should also take a moment to explain why Phil used the word "cill" instead of "kill" in this email. It was sent in early March of 1997. At that time, email—*especially* email from academic institutions—was strictly monitored by computer Nazis. These people felt duty-bound to monitor and report any misuse of the email used under "their" domain. Certain key words, such as "kill," would trip word alarms established by these neo-Nazi company snoops. And who are these computer Nazis? Why, they are the nerds who used to receive daily taunts and fearsome wedgies from the rest of us in the days before a computer appeared on our desk. Once the computers were forced upon us, it was the revenge of the nerds raining down all over us in the form of computer Nazis. The use of the word "cill" was simply a way for Phil—who *certainly* knew how to spell "kill"—to keep the IT nerds off his scent.

Following that first beautiful five-word sentence of Phil's email was an explanation of why he wanted to kill Brent. I don't know how long this all had to develop, but the remainder of Phil's email told this story: Phil had made arrangements with a crew from KUAT—a public television station that works out of the University of Arizona—to film *atrox* at their aggregate dens. Apparently, Brent was initially going to share some of his known *atrox* dens with Phil and KUAT. It came to the final hour, and Brent had a change of heart. He left Phil *and* the film crew high and dry by suddenly reneging on his offer to share his dens with them. As Phil was primarily a pond and stream herper, he did not have any *atrox* dens to offer KUAT on his own. The "cill Brent" email culminated with a request for my assistance as the person to guide them to some *atrox* dens. While there was no hot surge of joy running up and down my spine over the film-crew part of the request, the chance to be with Phil in the field was almost an answer to prayer. I responded with an enthusiastic yes to the proposal. I was even still enthused when Phil asked if Brent could join us. But I must confess that my inner clock, which is at times fueled by pettiness, did grind a gear or two at the request. "Yeah, sure Brent. I'll take you to *my* sacred places—even though I'm not good enough to be invited to yours?" (To this very day, Brent has never shared a site with me. That just ain't right!) But truth be told, at the time, I was doing everything in my power to be accepted by the academic herpers who kept shop at the University of Arizona. Phil and Brent were two such people. It was quite a coup for me to be the one to lead them to the Promised Land—even if it meant dragging a film crew along.

Our first outing was 6 March 1997. The KUAT crew consisted of Dan Duncan, Thomas Kleespie, and Nathan the cameraman. I did not write Nathan's last name down; hence, his shot at fame is gone. Life can be harsh for cameramen. The KUAT group was driving a huge Suburban, in which they squeezed Brent and Phil for round one of the trip. Since they were coming from the south, and I lived and played in the north, we made arrangements to meet in the town of Marana, which is along Interstate 10, to the northwest of Tucson. Phil hopped in my Suzuki Samurai for the remainder of the ride out. Brent was relegated to the back seat of the Suburban for this adventure. (This because Suburbans do not have trunks.) The place that I led them is known to a very few of us as "The Ranch Den." It was so named because the nearly snow-white rock structure that the *atrox* inhabit stood on top of a 300-meter-tall ridge that overlooks the headquarters of a major cattle ranching concern below. It is somewhat comical to note, in a scary sort of way, that ten days later I discovered that I had dragged the camera crew and two of the U of A's finest to a place that is privately owned by that ranch. In short, we were illegally trespassing on deeded land this day, and were lucky not to be thrown in jail—or worse. On top of that, the rancher would have dynamited that den out of existence had he known about it. Fortunately, even though we made no attempt to hide ourselves, we were not discovered. Several noteworthy events happened that day. The first came about when last-name-less Nathan found a Gila Monster roughly 20 meters downslope of the den. Five sets of eyes were bearing down on me when they requested removing it from the hole it was found in for some staged shots. I was very hesitant to tell them "no," and was about to do so anyway. But Tom, who was the producer of the program, offered that they were going to visit the Desert Museum the next day. It was there that they could get some staged shots of a Gila Monster. I will always be grateful to Tom for honoring the sensitivity of the site, and making it easier to say "no" to them. In all, we saw 16 *atrox* at the den itself, and the crew got some candid dialogue between Phil and me, which made it through the final edits. Yup! Phil and I were on TV together! They also filmed some courtship and groupings of very large and magnificent *atrox*. There was a stunning orange-colored *atrox* at this den that would rival any Red Diamond-backed Rattlesnake (*Crotalus ruber*) in beauty. KUAT got some great footage of this snake. But the best event of the day happened after we had hoofed back down from the den. We were driving in the wide, sandy wash that had been our route in. My vehicle was in the lead. At 1500 hours, a four-foot-long, all pink Coachwhip (*Masticophis flagellum*) sizzled across the wash in front of us. Without a word, Phil and I leapt out of my Suzuki and were in hot pursuit. Phil cut in front of the snake, which reversed direction. In doing so, it fled into my waiting grasp. As soon as Phil noted that I had control of the snake, he circled around me in order to check out something back in the direction that the snake had initially come from. He took a knee, used his mirror to snag some sun, and reflected it into a crevice that ran under a massive chunk of exfoliated granite.

Less than a minute later, the film crew gathered their cameras and equipment, and were filming that which was inside the crevice that Phil had just found (Figure 2, left). It was a new *atrox* den. Phil had seen the Coachwhip that now resided in my hands a few seconds before I did. When he first viewed that Coachwhip, the head and neck was inside the crevice den, and the remainder of the snake was sprawled outside of it. Our vehicular approach must have alarmed it. Why it chose to disengage whatever it was doing to crawl directly in front of us instead of just slipping into the crack to join the *atrox* will always be a mystery to me. And as I over-think the moment, I can recall several other times that Coachwhips viewed prowling just outside of *atrox* dens chose to

Figure 2. (Left) The KUAT film crew working the new *atrox* den that Rosen's Coachwhip revealed. (Right) Rosen with the Coachwhip that led him to "Rosen's Den." Images by author, 6 March 1997.

flee from the dens rather than into them. Whatever relationship exists between our local Coachwhips and *atrox* might be, it would be fair to say that they are not exactly chummy. In any case, Phil's alert observation of the Coachwhip prowling near that crevice, and subsequent investigation, gave us a new place to watch in the years ahead. On the day being described, there was quite the snarl of snakes stuffed into that crack. While my mental estimate was seven, there were only three heads visible. I was always careful not to exaggerate in my herp journals. Hence, my notes from this day reveal this: *Rosen's Den: New atrox den, in exfoliated granite crevice near wash. Three atrox visible, could be more in back. Found by Phil during Coachwhip capture.* Were it not for that Coachwhip, and Phil's alert spotting, we never would have found this den. We always stop there on those rare occasions that we visit the Ranch Den. (Yeah, "deeded land" or not, if you want to keep us out, post some signs, dammit!) The other worthy thing about this experience is that the Coachwhip we captured resulted in me getting an image of Phil. In the days of 35 mm slide images, I only rarely took people pictures. I'm quite sure that the reason for the photo was *not* the pretty face holding that Coachwhip! (Figure 2, right).

When we parted company at the end of this day, we agreed that I would continue to monitor my *atrox* dens—as I always do in March anyway. If I saw anything worthy, I was to notify Phil. On 15 March, I witnessed a brief bout of combat at a place we call the Fluorite Mine. The situation there was eight male *atrox* who were scattered among a series of boulders just outside a collapsed mine shaft. On this day, when one *atrox* crawled past another, a challenge was issued, but the actual fight was brief. I informed Phil of this situation, and we arranged to meet on the campus of the University of Arizona on 17 March—two days later. Phil drove his 4wd pickup truck, I took shotgun, and KUAT brought up the rear in their massive Suburban. Sadly, Brent was not to be part of this adventure. It was on this trip that I began to sense the magnitude of Phil's field documentation. The route to the Fluorite Mine involves a convoluted series of turns on roads that are in essence unmarked quad trails. At each turn, Phil would stop the procession in order to jot down the time, a GPS reading, plant associations, air temperatures, and any lizards that we saw between each turn. He was doing all this longhand, using a special waterproof pen on special waterproof paper. The lizards he documented were neatly scrawled out with both common and Latin names. Every turn that we made—five total—took Phil roughly ten minutes to spell out. With the second such stop, I sauntered back to the Suburban to see how the KUAT crew was holding up. In short, they were absolutely beside themselves with impatient exasperation. They were *begging me* to do something to hasten the process of getting to our destination. Since at that point in my life I was immersed in a world where time was money, I completely sympathized with their situation. However, that had nothing to do with my own actions that followed. It was bothering me that Phil was basically creating a step-by-step roadmap to get to one of my most sacred places. On top of that was the fact that it was getting hotter by the minute. My plan was to get to the Fluorite Mine exactly at prime time, and not one minute later. Hence, upon getting back into Phil's truck, I waited until Phil wasn't watching, and quickly snatched and deep-pocketed his fancy waterproof pen. This plan backfired as soon as we got to the next turn. Phil resolutely would not proceed without his waterproof pen, and began to turn his truck inside out seeking it. I offered him my own pen, but nope! My pen was not waterproof; hence, it was not acceptable. The flandickery finally got so prodigious in its proportions that I finally "found" Phil's pen for him, so that we could proceed in hasteless fashion to get to our destination. When we arrived, the situation was still exactly as I had described it. We moved cautiously among the boulders and visually picked off the *atrox*. They were in separate locations, all large adult males, all were snuggled in the shade of a sheltering boulder. A circle 50 feet or so in diameter would have contained them all. One or more of these snakes might have had a female tucked in behind it. But without flipping the boulders, we would never know that. *Atrox* combat behavior is a difficult thing to see, let alone film, as it does not happen often. But the set-up here was perfect. The crew had only brought one camera. This one was set at the best angle possible, and the other two people in the crew acted as spotters for all *atrox* outside the range of the camera.

I nudged Phil with an elbow, and quietly suggested that I had some more dens a half-mile down the road. He caught my drift immediately, and told the film crew that we were going to check out some different places. If we saw anything that looked better than what they already had in front of them, we would let them

know. We saw a lot of great stuff on this side trip, but none of it was any better than what they already had. When we returned, we found two of the crew sprawled out in the shade of their Suburban. Nathan had found a new use for the snake hook that we had left him. He found that he could thrust his index finger inside the crook of the hook, and twirl the shaft. He stood amongst the boulders where the *atrox* resided, and whirled that stump ripper with great dexterity. He became a stump-ripper windmill of sorts. We could have generated millions of volts of electricity off him. Meanwhile, Saint Patrick himself could not have done a better job at driving the *atrox* out of the county! It was definitely time to take them home. When we parted company with them, Phil invited me to visit the Bio Science East Building. There we met George Bradley, who was the keeper of Dr. Charles H. Lowe's preserved specimen collection. We exchanged pleasantries, and during the process, George told Phil about some *atrox* dens that he knew of. He jotted down some GPS coordinates, which Phil pocketed. Phil then led me to the back of the room, unlocked the door, and with a broad and sweeping gesture, said "C'mon in." Without realizing it, I was about to see something very special. In order to demonstrate the privilege of the tour I was about to receive, Harry Greene himself was refused access. Dr. Lowe made him wait outside the room while he gathered the specific specimens that Harry was requesting. The list of other herpetologists treated with the same undignified manner is staggering. I don't know how it is now, but back in 1997, Dr. Lowe was still alive. He let very few people in to see the preserved specimen collection of the University of Arizona. When I entered that hallowed room, I was seeing something very few people will ever lay eyes upon. In all honesty, I found some of what I saw unsettling. To see several five-gallon jars stuffed with toe-tagged, pickled Gila Monsters is a sobering sight. Another such jug contained Mountain Kingsnakes—perhaps a hundred or more—neatly coiled on top of each other. And so on and so on, on metal racks from floor to ceiling, were hundreds of these jugs. The naturalist side of me was appalled, but the knowledge of the usefulness of these specimens to science was also understood. I have recently benefited greatly from the herpetological reproductive work of Dr. Stephen Goldberg, who received the majority of his Sonoran Desert specimens from this collection. Every specimen had an identification card with a number affixed, and that number was in turn indexed within stacks and stacks of binders. Now that I have worked more closely with the lab herpetologists of our area, I recognize the value of these specimens. Nearly every published paper about the herpetofauna of the deserts of the Southwestern United States and northern Mexico has benefited from the collection that I saw that day. After the tour, Phil invited me to go with him to look at the *atrox* dens that George had just revealed. That was the first time—*ever*—that anybody showed *me* an *atrox* den! The dens in question were a little too close to civilization for my taste, and were absolutely infested with beehives. KUAT was driven off that hill by the bees when they filmed there the next day. They were stung several times, but saw enough action there to be enthused about the place. They purchased bee suits, and went back for more!

In wrapping up the story of my first field outings with Phil, I feel compelled to say that working with the KUAT film crew was overall a positive experience. By 1997, I had worked with several film companies, and the experiences were all *terrible*. Were it not for Phil's participation, I likely would have never been involved with film companies again. To their credit, KUAT entered the field with us without any preconceived notions or scripts to follow. They of course wanted to film *atrox* mating or combat (who doesn't?), and they *did* get a little bit of both. But they basically took whatever the *atrox* gave them graciously, and churned it all into a neat hour-long television show. This outing taught me that leading film crews *can* be a good experience. Without Phil, I would not have learned that, and would have missed many fine opportunities to work with the best as a result. But even if the filming efforts had wound up being a disappointment, the opportunity to work with Phil would have made the experience worthwhile. We bonded nicely on that second outing, just after we left KUAT at the Fluorite Den. We were the same age. We both documented our finds in writing. We both spent our formative years back east, and had many stories of similar herps being found in similar habitats. By the time we got back to the Fluorite Mine this day, I had decided that I sincerely liked Phil. Once I decide that about somebody, their feelings about me don't really matter much. After all, I love animals who won't hesitate to put me into the hospital, if not the morgue. But in Phil's case, I do believe that he was also bonding with me equally throughout this experience. But despite the fact that we seemed to hit it off well, it was very obvious that we would not be spending much field time together. As mentioned in the early going of this column, Phil was mainly a pond and stream kind of herper. He never grew out of his love of wetlands. Had he wanted to drift away from leopard frogs, mud turtles, and gartersnakes, he would have been most welcome in my world. And had I wanted to turn my back on tortoises, rattlesnakes and Gila Monsters, I'm reasonably sure that I would have been welcome in his. From 1997 until recently, we traveled different paths in an otherwise parallel universe. However, I was blessed to be in field five other times with Phil. Each and *every* time, something worthwhile and remarkable happened. It is my sincere hope that recounting these adventures will help to reveal the essence of the man who was perhaps the greatest herpetologist / conservation biologist to ever roam the hills and valleys of Arizona—if not the world.

This here is Roger Repp, signing off from Southern Arizona, where the turtles are strong, the snakes are handsome, and the lizards are above average.

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Advertisements

For sale: **highest quality frozen rodents**. I have been raising rodents for over 30 years and can supply you with the highest quality mice available in the U.S. These are always exceptionally clean and healthy with no urine odor or mixed in bedding. I feed these to my own reptile collection exclusively and so make sure they are the best available. All rodents are produced from my personal breeding colony and are fed exceptional high protein, low fat rodent diets; no dog food is ever used. Additionally, all mice are flash frozen and are separate in the bag, not frozen together. I also have ultra low shipping prices to most areas of the U.S. and can beat others shipping prices considerably. I specialize in the smaller mice sizes and currently have the following four sizes available: Small pink mice (1 day old—1 gm) , $25 /100; Large pink mice (4 to 5 days old—2 to 3 gm), $27.50 /100; Small fuzzy mice (7 to 8 days old—5 to 6 gm), $30/100; Large fuzzy mice / hoppers (10 to 12 days old—8 to 10 gm), $35/100 Contact Kelly Haller at 785-224-7291 or by e-mail at kelhal56@hotmail.com

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NEW CHS MEMBERS THIS MONTH

Sky Button
Robert Young

UPCOMING MEETINGS

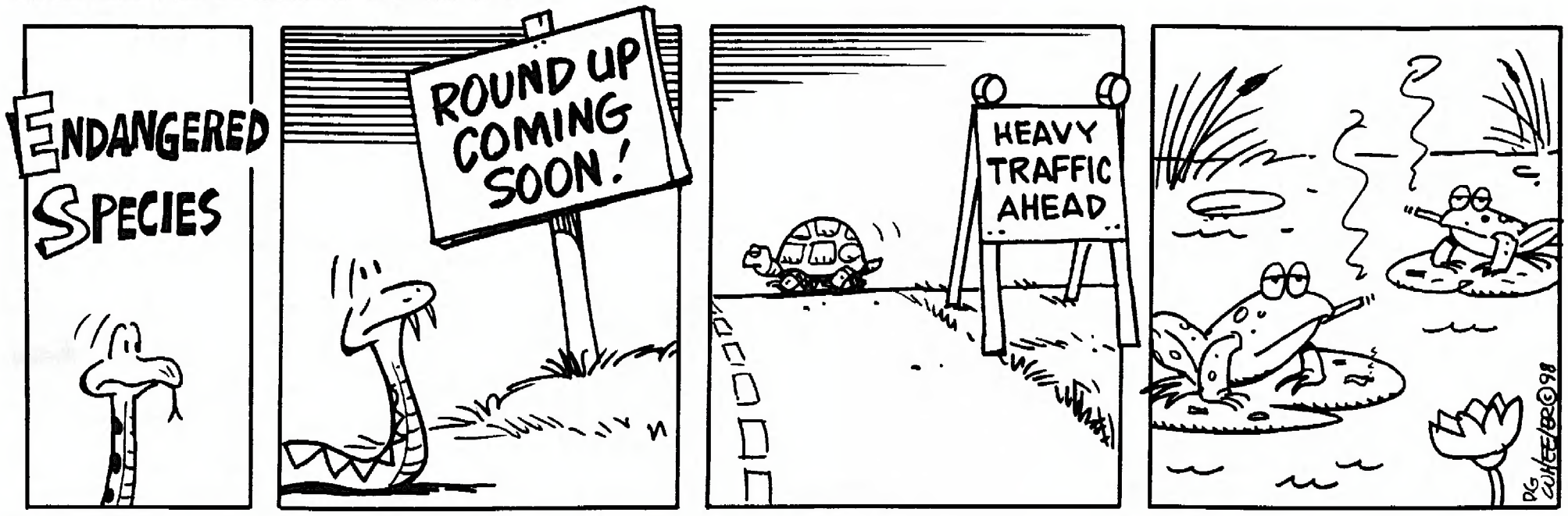
Until in-person meetings again become possible the Chicago Herpetological Society will begin holding monthly general meetings online via Zoom Webinar. The November meeting will take place on the 18th to avoid conflict with Thanksgiving eve, but normally these meetings will take place on the last Wednesday of each month at 7:30 P.M. Chicago time. Please check the CHS website or Facebook page for information on the program. Find information about attending a Zoom Webinar here:
<https://support.zoom.us/hc/en-us/articles/115004954946-Joining-and-participating-in-a-webinar-attendee->

The election of officers and members-at-large of the CHS board of directors for 2021 will take place using mail-in ballots and online voting. Results will appear in the December CHS *Bulletin*.

Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? The next board meeting will be held online. If you wish to take part, please email akolb@chicagoherp.org.

THE ADVENTURES OF SPOT



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